

Case study: The Marlborough Wine Research Centre

Case Study of an Economic Development project in Marlborough. Prepared by newly accredited EDANZ member Tony Smale MBA (Henley), AECD (NZ)

This case study provides an overview of a local economic development project, commenced in Marlborough in 2001. It outlines the project objectives, why it was undertaken, the organisations involved, the approach taken to completing the task and the outcome of the project. The case study includes an estimate of the financial and non-financial successes and failures.

For regions like Marlborough that had suffered sustained loss of government services, had only limited science institutions, no university and nominal polytechnic presence, goals such as returning science to the region, building tertiary education opportunities, fostering innovation and building networks within and beyond the region were keys to not only prosperity but to survival. A community's innovativeness - its ability to constantly reinvent itself - is a major determinant in its enduring health.

Background

The timely arrival of the *Regional Partnership Programme* with its promise of Government funding acted as a catalyst for development of the project. Marlborough was a region of paradoxes including a low wage economy despite rapid and diversified growth across a number of sectors and, while the rest of New Zealand focused on job creation the region faced an emerging labour and skill shortage.

High Growth - Poor statistics

The process of developing the *Progress Marlborough* Regional Economic Development Strategy was greatly constrained by the state of statistics at that time and the coarse multi-region aggregation. Those statistics that could be relied upon showed a loss of youth and low average hourly wage rates. The Victoria University Deprivation Index painted a reasonably positive picture (no extreme wealth or poverty), the Massey University/AMP Housing Affordability Index showed Nelson/Marlborough (in aggregate) as the second least affordable place in New Zealand to live. Beyond that, any detailed analysis proved impossible and "expert" opinion and visioning was relied upon. The prevailing opinion was the region was becoming less affordable to live in and that would have a variety of negative outcomes. Despite the low wage rates there was no evidence of Marlborough businesses enjoying higher profitability as a result. The general opinion was that the average wage rate needed to be increased and that could only be achieved by developing new higher value occupational categories.

By 2001 Marlborough was already the largest wine growing area in New Zealand and over 75% of the country's aquaculture exports emerged from the region. Despite that, there were no wine or aquaculture company head offices in the region meaning many of the high value jobs were located elsewhere. This was a possible explanation for the low average wage rates.

Metrics

The project relied upon a variety of metrics including:

- Demographics especially loss of youth;
- ROI research investments (Economist's report);
- Industry statistics (www.winenz.co.nz);
- Educational attainment/transition from secondary/participation/ Māori attainment;
- Industry growth projections;
- Victoria University Deprivation Index;
- Massey/AMP Housing Affordability Index.

Knowledge economy

One of the central tenets of the first *Progress Marlborough Strategy* was that to fully participate in the emerging knowledge economy the region had to be a producer of novel intellectual property as well as drawing upon that developed elsewhere. Knowledge generation is a product of innovation. Innovation extends well beyond science and commerce. It may seem paradoxical then that this project was about the construction of a building. The rationale was quite simple. To conduct nationally significant research and attract world-class scientists, research students and funding, physical facilities were a pre-requisite. And that was the "end" that justified this particular "means".

Goals established

It was apparent that one counter to the low wages rates was to identify a segment of the value chain that was not anchored elsewhere and develop it in Marlborough. Research and education became the preferred option. Against that background the ambitious goal was established of creating three "Centres of Excellence" around the three areas that Marlborough held national or international significance in: Wine growing, Aquaculture; and Aeronautical engineering training.

There were no established national centres for any of these and therefore their development would provide net positive benefit to both Marlborough and New Zealand, an objective of the strategy.

Opportunity confirmed

Since 1984 the Marlborough District Council had, in a unique and forward thinking partnership funded to the tune of \$150,000 per annum, the Marlborough Primary Production Research Centre. At the time the Centre's focus was on agricultural and pastoral production. However this provided a framework and pool of scientific networks and research management. Wine quickly emerged as the preferred priority option and the existing research facility provided the foundation for the later development of the Marlborough Wine Research Centre.

Project champion

At the same time that the opportunity to develop the three Centres of Excellence was being considered, Mark Peters, the Chairman of the Marlborough Rugby Football Union had invoked discussion, particularly with the Marlborough District Council, around the loss of promising sports people from the region (David Hill and Leon MacDonald had both just been poached by larger unions). Mark was also Chairman of the Grove Mill Wine Company and posed the question of whether the wine sector offered the opportunity to increase educational opportunities within the region and possibly help retain young people. This conversation dovetailed perfectly with the new strategy and a project was born. Mark Peters was to become the project chairman and champion while the District Council provided the resources.

World class research and education

In its original conception the Centre was intended to be a world class wine research and education centre to rival those of Stellenbosch University in South Africa, Roseworthy in Australia and University of California in the USA. New Zealand, it was identified, was the only New World wine producing country without an internationally recognised education and research facility.

Objectives of the project

Innovation is heavily dependent upon relationships and knowledge creation and transfer. The *Progress Marlborough Strategy* identified a number of objectives that the Centres of Excellence might contribute to:

- Mitigating the acute loss of youth in the 15 to 24 year age group in order to maintain a sustainable workforce, social infrastructure, and the viability of institutions such as the Nelson Marlborough Institute of Technology. Although the cost of the shortages has never been formally quantified, approximations made in 2009 indicate that the impact on the overall Marlborough economy could well have, by 2007/08 been measured in \$100s of millions of dollars GDP per annum.

- Growing science in the region. The sector was entering a period of what proved to be spectacular growth. The NZ wine industry, largely on the back of Marlborough Sauvignon Blanc attained the highest average per litre price of any wine-producing nation. Forward thinking members of the sector recognised that to sustain that position would require a substantial investment in research and research based education.
- Mitigating the low wage issue. Higher value scientist and technician salaries would contribute to raising the average wage and provide educated graduates to the sector;
- Attracting Government investment. The region, like many others, had suffered from the withdrawal of many government services, impacting the viability of the region's economic and social infrastructure. In the regions, government spending had traditionally represented a significant part of GDP and provided a substantial pool of educated, socially and economically active people. While it was recognised that only modest opportunities existed to restore provision of government services to the region, the opportunity did exist to obtain high value development and research grants.
- Maximising yield. It was clear from the public consultation that there was no clear picture of Marlborough value and values. Nor did the wine sector have a clear picture beyond production values, of what actually defined "Marlborough" Sauvignon Blanc. Protecting the value and values, and in particular understanding what makes the Marlborough Sauvignon Blanc distinctive was essential to realising the sector's and region's ambitions.

Partnerships

The project was built around partnerships, both those required as part of the Regional Partnerships Programme and those that underpinned the project. By the time the Centre opened relationships had been established with and between: Marlborough District Council; Wine Institute of NZ; Wine Marlborough; Marlborough Regional Development Trust; Industry New Zealand (Now NZTE); Individual wine companies; Lincoln University; University of Auckland; Hort Research and Crop and Food (now Plant and Food Research); Nelson Marlborough Institute of Technology; and support confirmed from the Foundation for Research Science & Technology.

Milestones

The project was also built around the Major Regional Initiative application to Industry New Zealand. The application was the first prepared, coinciding with the development of formal criteria and so served as a prototype for the application process. Although now popular, the term "milestone" was rarely used but rather a "stage-gate" process was applied. In practice an almost "perfect storm" had emerged and the project gathered such momentum that it quickly reached a point of no return with the gates only identified as having been passed through in retrospect. They included:

- Regional research around opportunity;
- Challenge definition and creation of project team;
- Opportunity definition;
- Establishing project criteria;
- Strategy development around form of “Centre of Excellence” and potential partners national and/or international;
- Commitments - financial and other;
- Development capital from NZTE and industry. A detailed funding application was developed supported by a cost benefit analysis;
- Confirmation of research funding from FoRST and Industry;
- Confirmation of education partners;
- Confirmation of research partners.

Critical success factors

Critical success factors were identified, largely focused around achieving sustainable funding commitments from FoRST and matching industry contributions. It was also identified that the education to be provided must be research based.

Achievements

Even when economic development outcomes can be quantified, attributing causality, is at best, problematic. The project proposal based its cost benefit analysis on standard formulas for the return on investment in research. This probably significantly under-estimated the true returns because of the nature of the project and excluded a wealth of other financial and non-financial benefits that have subsequently been realised from the project including:

- Positioning the region as the hub of wine research for New Zealand;
- Positioning the region firmly on the Government’s economic development radar;
- Obtaining grants from the FoRST and attracting national industry contributions;
- Restoration of science research to the region;
- Developing research relationships with Auckland and Lincoln Universities;
- Long term commitment and investment from Plant and Food CRI;
- Research output - reported in Wine Research Centre Annual Report;
- Economic contribution. In July 2009, even with 4,000 plus seasonal workers in the region, there were only 90 registered unemployed in Marlborough, a fraction of what might otherwise have been expected. Based on the 2006 *Progress Marlborough* estimate of \$342m GDP from the sector (Increased substantially in the interim), at just a 1% annual contribution to productivity, the output of the Centre would be valued at \$3.42 million GDP pa while the

contribution via education, were it responsible for just a 0.5% per annum productivity gain would be valued at \$1.7m GDP pa.

Shortcomings

Countering the many achievements of the Centre, there have been a number of setbacks including:

- The education component not yet reaching its full potential;
- Demands placed upon scientists to “chase” funding imposing on their research effort;
- Issues around ownership of IP;
- The 2008 vintage of near 200,000 tonnes exceeded production capacity by 45,000 tonnes and exceeded market demand by a similar amount. The 2009 vintage was approximately 200,000 tonnes. The industry target is for 5% bulk sales but this has now blown out to 35%. Characteristic of the New Zealand approach to innovation, the Centre has focused upon product and process innovation. The opportunity now exists to focus attention on management and marketing innovation.

ends

A cross-regional case study involving Hawkes Bay, Otago and Nelson

This case study was presented at the EDANZ national conference in August 2009, by Janet Takarangi, GM of Venture Hawkes Bay, in collaboration with Bill Findlater (Nelson Economic Development Agency) and New Zealand Trade and Enterprise.

Apple Futures is a strong example of a cross-regional, large scale project that has strengthened industry and regional relationships around a sector that generates over \$360 million per annum in exports, with a forecast value of \$425 million in 2012.

It is a public-private partnership between PipfruitNZ (PNZ), pip fruit growers and exporters, New Zealand Trade and Enterprise (NZTE), and the regions of Hawkes Bay, Otago and Nelson. Venture Hawkes Bay was nominated as the contract holder due to its role in working with PipfruitNZ on an earlier project which led to Apple Futures. It is the designated contract manager via an independently chaired Governance group.

In August 2008 MAF (Ministry for Agriculture and Fisheries) indicated that the New Zealand apple industry must think smarter if it is to maintain major export markets in the UK and Europe. Consumers there were demanding fruit that is safe to eat and produced in a sustainable environment.

The Apple Futures Project is an example of rallying to solve this export challenge. It was designed to start the move towards an integrated process for the marketing of NZ Apples using the development of low residue fruit to meet market demand in Europe in particular through an integrated fruit programme (IFP). (Ultra low residue fruit is achieved through precise and early timing of sprays.) The process was initiated to also cover sustainability, carbon footprint and other issues that may be identified by the market in the future and which are often raised as non-tariff barriers to market access.

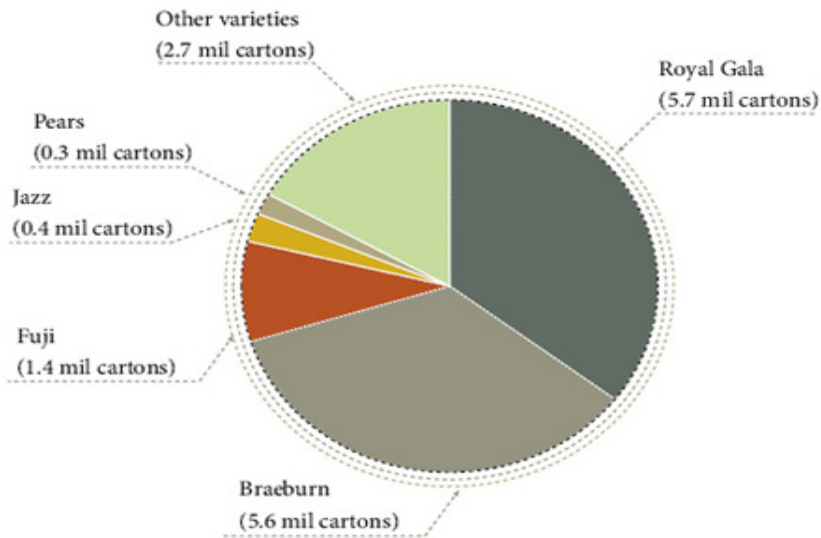
The challenge for the industry had been that while growers pack houses and exporters were active across the country, research showed that 85% of exported apples came out of three regions: Otago, Nelson and Hawkes Bay with the most coming from Hawkes Bay, the region where PNZ was also based.

It became clear that Venture Hawkes Bay could help facilitate this project by developing strong regional relationships and a strong partnership with PNZ to take this to the next level building on the work done via IFP

After securing a \$2 million grant from New Zealand Trade and Enterprise's Major Regional Initiative Fund and financial support from Pipfruit New Zealand along with regional support, the concept was trialed by growers in the Hawkes Bay and Central Otago in the winter of 2007. In 2008, it was extended to Nelson.

These three regions now drive the project. Venture Hawkes Bay holds the contract on behalf of the partners and a project group within Venture Hawkes Bay drives the project on a day to day basis. Team members are both staff members and contractors. John Austin Smith is the Project Manager.

Exports as at 31/3/2008



The short-term objective for July 2008 was that 10% of all export certified non-organic orchards in Hawkes Bay and Central Otago would have adopted the Apple Futures programme. 75% of fruit produced would be marketable as having no detectable chemical residue. The medium term objective is identified for July 2010 by which time 60% of all export certified conventional apple orchards will have adopted the Apple Futures regime and 75% of fruit produced will be marketable as having no detectable chemical residue.

In the long term the NZ Apple Industry will have positioned itself to rebuild a premium position in the Europe-UK markets.

Unique characteristics

This project is unique in that the partnership offers both an immediate focus on day to day orchard practices using already established practices set up by PNZ under their Integrated Fruit Programme but uses established regional development networks and processes to get uptake from orchards, to build in ongoing sustainability of effort, to link the project to established regional economic development strategies (all three regions are strongly based on the primary sector) and to build regional awareness. This project was able to add value in different ways.

Although each region had participated in NZTE funded projects before we had not worked together before and so it was important that a capability phase was developed as a lead in to build the relationships and to assess the scope of what was required. Hawkes Bay was fortunate

in that it had the experienced business person John Austin Smith as the project manager to provide continuity for both stages.

A distinct aspect included the development of a Governance Board with an independent Chair. The Board was made up of parties from across the partners and industry members. There is a strong audit trail for decisions taken, regular budget monitoring, the results and implications of those results are assessed, the overall objective of delivering a premium fruit to meet European customer demands is kept as the key focus and new marketing developments such as the NZ Apple Story have a solid base to write Chapter 1.

The Challenges

There were challenges in getting this project off the ground. The biggest one was getting positive acceptance that the Pipfruit industry was able to be strengthened and was an important sector. Many people felt apples were finished “a sunset industry”.

When the project was first mooted the Food and Beverage sector was not being given any attention as a key sector by national agencies. Arguments had to be mounted around how long a Growth and Innovation Framework (GIF) project would take to replace a \$360 million per annum industry. It was argued that it made sense to at least maintain that sector whilst new sectors were being developed.

This required a lot of discussion and push back from regions who needed to be able to highlight the key role of the primary sector in regional economies, the need for cross regional and industry collaboration and the need to start “with the end in mind” to quote Covey. (The Seven Habits of Highly Effective People, Steven R Covey “Habit 2: Begin with the End in Mind: Principles of Personal Vision”)

Alongside this was the fact that the industry had gone through change over the last 10 years. During that time, the land area under apples had gone from about 14,000 ha to 9000ha. Our method of collecting the data had become much more accurate, and the decline in land in orchards was in part offset by increased productivity. Grower numbers had shrunk from more than 1400 to a little more than 400, although this is due to aggregation and consolidation. (Source: Peter Bevan CEO PipfruitNZ)

Key outcomes

Apple Futures builds scale and supports the Industry body PNZ to strengthen its role in re-positioning the Pipfruit industry. It also means that regional development collaborative practices are much stronger and more sustainable than by going it alone.

We have identified that the international levels set by markets for residue levels are higher than what we are now producing here in NZ and so we have bought a strategic advantage in European markets. We know however that it will only be a matter of time before Asia and the US follow by setting levels for those markets, New Zealand is now ready to meet these new standards..

Conclusions

Projects like this need time to mature to be a success. This was started in 2005/6 with first a capability project, which proved that there was a case for intervention and that all key players would support the project financially and with in-kind contributions. A concept was approved: a business case was developed and submitted and approved by NZTE.

Ultimately this project provides an innovative NZ Inc approach which is often talked about but hard to pull off. It is a model within NZTE for the horticulture sector. The approach is seen to have validity and whilst other regions may not have had a long investment in science and IFP development they are keen to learn any lessons from Apple Futures.

It has built good will between the Industry and regions, and has led to brand development with 100% Pure NZ Apples. (Part of the government's policy is to extend the 100% Pure Brand into sectors other than tourism)

The project - together with the way the industry is restructuring itself means that key areas have come together in new ways that enable the industry to rethink its value in global markets. We also know that residues are just the beginning of non tariff barriers to trade food miles, carbon foot printing, sustainability and being able to show traceability from orchard to mouth are all emerging areas

While development continues, results have confirmed that it is possible to produce apples with very low residue. The next step is to create a marketing and promotional strategy to take overseas.

The goal for 2010 is to have Apple Futures reintegrated back into PipfruitNZ as core business. HorticultureNZ is exploring the approach for other sectors and regions.

The relationship is now different between the industry and regions, between sector and regions and between regions and there are now linkages from a regional project to a whole sector approach.

Without support from New Zealand Trade and Enterprise it is hard to see how this project would have got off the ground. Having a regional development agenda and budget made developing a business case more focused. Now with the demise of all regional funding other than the Enterprise Development Fund, regional work needed to build capability a cross regions on projects of national significance will be more difficult to develop and to “sell” to parties involved.

It is hoped that this large export earning industry is now well positioned to be engaged in established and emerging markets and that the regional capability and networks are in place to develop Chapters 2, 3 and 4 for the continuing Apple Futures Story.

Ends